We claim:

1. A method of making a data storage disk master comprising:

providing a master substrate;

specifying a photosensitive material layer thickness;

providing a layer of photosensitive material on the master substrate, the layer having an initial thickness corresponding to the specified photosensitive material layer thickness;

controlling optical exposure to the layer of photosensitive material; and

controlling development criteria of the layer of photosensitive material,

wherein specifying a photosensitive material layer thickness, controlling optical exposure and controlling development criteria collectively control the creation of an inverse of a desired replica disk pattern on the master.

2. The method of claim 1, wherein the inverse of the desired replica disk pattern includes an inverse of desired lands and grooves.

3. The method of claim 2, wherein at least some of the inverse of desired lands and grooves have a depth greater than 50 nanometers.

4. The method of claim 2, wherein at least some of the inverse of desired lands and grooves have a width greater than 150 nanometers.

5. The method of claim 1, wherein the inverse of the desired replica disk pattern includes an inverse of desired surface variations.

6. The method of claim 5, wherein at least some of the inverse of desired surface variations have a depth of less than 50 nanometers.

7. The method of claim 5, wherein at least some of the inverse of desired surface variations have a width less than 150 nanometers.

8. The method of claim 1, further comprising creating a first-generation stamper from the master.

9. The method of claim 8, further comprising creating a second-generation stamper from the first-generation stamper.

10. The method of claim 9, further comprising creating flyable media exhibiting surface variations using the second-generation stamper.

11. A method of making a data storage disk master comprising:

providing a master substrate;

specifying a thickness of photosensitive material;

coating the master substrate with the specified thickness of photosensitive material;

exposing the photosensitive material to a controlled amount of optical energy; and

exposing the photosensitive material to developer solution,

wherein the specified thickness of photosensitive material, the controlled amount of optical energy, and the exposure to developer solution collectively define an inverse pattern of specified lands and grooves on the master.

12. The method of claim 11, wherein the inverse pattern has a substantially flat groove bottom.

13. The method of claim 12, wherein the substantially flat groove bottom is defined by a surface of the master substrate.

14. The method of claim 11, wherein at least some of the inverse pattern of specified lands and grooves has a depth greater than 50 nanometers.

15. The method of claim 11, wherein at least some of the inverse pattern of specified lands and grooves has a width greater than 150 nanometers.

16. The method of claim 11, further comprising creating a first-generation stamper from the master.

17. The method of claim 16, further comprising creating a second-generation stamper from the first-generation stamper.

18. The method of claim 17, further comprising creating flyable media using the second-generation stamper.

19. A method of making a data storage disk master comprising:

providing a master substrate;

specifying a thickness of photosensitive material;

coating the master substrate with the specified thickness of photosensitive material;

exposing the photosensitive material to a controlled amount of optical energy; and

exposing the photosensitive material to developer solution,

wherein the specified amount of photosensitive material, the controlled amount of optical energy, and exposure to the developer solution collectively define a pattern having an inverse of desired surface variations.

20. The method of claim 19, wherein the pattern having an inverse of desired surface variations has a flat master bottom defined by a surface of the substrate.

21 The method of claim 19, further comprising creating a first-generation stamper from the master.

22. The method of claim 21, further comprising creating a second-generation stamper from the first-generation stamper.

23. The method of claim 22, further comprising creating flyable media that exhibit surface variations using the second-generation stamper.

24. The method of claim 19, wherein at least part of the pattern having an inverse of desired surface variations has a depth less than 50 nanometers.

25. The method of claim 20, wherein at least part of the pattern having an inverse of desired surface variations has a depth less than 25 nanometers.

26. The method of claim 20, wherein at least part of the pattern having an inverse of desired surface variations has a width less than 150 nanometers.